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FEDERAL COMMUNICATIONS COMMISSION
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In re

PR Docket No. 93-61

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COMMENTS ON PETITIONS FOR RECONSIDERATION

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May 24, 1995

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Summary

An ad hoc coalition of natural gas distribution utilities ("Gas Utilities") comments on the petition for reconsideration filed with respect to the Commission's February 6, 1995 Report and Order ("*Decision*") establishing rules for automatic vehicle monitoring systems ("AVM") operating in the newly established Location and Monitoring Service ("LMS").

Review of the submissions of the various parties indicate the general agreement among Part 15 users with the suggested revisions of the Gas Utilities contained in their Limited Petition for Reconsideration. Unfortunately, certain multilateration system proponents have advanced a hardline, uncompromising position, essentially ignoring the important public interest benefits of Part 15 use of the 902-928 MHz band and proposing to treat Part 15 use of the band as a tenancy by sufferance.

The *Decision* in this proceeding is a set of compromises designed to accommodate interests that are diverse and potentially conflicting. The *Decision* unambiguously recognized the public interest importance of automatic meter reading and more generally the public benefits that the millions of Part 15 devices operating in the 902-928 MHz band provide. Accordingly, the *Decision* enacted certain safeguards, including (1) interference thresholds, (2) limits on interconnected traffic, (3) requirements for testing prior to operation, and (4) a stringent emission mask, to facilitate sharing the band and to protect Part 15 operations.

ii.

The petitions for reconsideration submitted by the multilateral proponents, however, call for the Commission to do away with each of these protections. If adopted, these proposals would eliminate every protection the Commission fashioned to safeguard the interests of Part 15 users. For the Commission to reverse its course and adopt these proposals would be to turn its back on the public interest benefits of Part 15 devices. The Gas Utilities urge the Commission to reject these calls to weaken the protections provided Part 15 in the *Decision*, and instead to adopt the suggestions of the Gas Utilities and other members of the Part 15 community to strengthen those protections.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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MAY 24 1995

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In re)
)
Amendment of Part 90 of the) PR Docket No. 93-61
Commission's Rules to Adopt)
Regulations for Automatic)
Vehicle Monitoring Systems)

To: The Commission

COMMENTS ON PETITIONS FOR RECONSIDERATION

An ad hoc coalition of natural gas distribution utilities ("Gas Utilities") by counsel, and pursuant to Commission Rule Section 1.429, comments on the various petitions for reconsideration filed to the Commission's February 6, 1995 Report and Order, establishing rules for the Location and Monitoring Service ("LMS").^{1/} In support, the following is shown:

I. Introduction.

1. As the Gas Utilities noted in their Petition for Limited Reconsideration (at pp.2-3) ("Limited Petition"), they are users of Part 15 automatic meter reading ("AMR") devices operating in the 902-928 MHz band whose motivation for participation in this proceeding is threefold. First, the Gas Utilities desire to avoid complaints from licensed users of the band which may force them to cease or substantially limit their operations because of alleged interference. Second, the Gas Utilities wish to avoid loss of service as a result of interference from licensed users. Third, the Gas Utilities wish to preserve the environment in the 902-928

^{1/} Automatic Vehicle Monitoring Systems, 10 FCC Rcd ___, FCC 95-41, 60 FR 15248 (March 23, 1995) ("Decision").

MHz band for future Part 15 use and expansion by limiting ambient noise in the band. See *Decision*, at para. 32. Given the enormous installed base of AMR devices, the public interest is undoubtedly served by protecting the ability of utilities to continue to use and to expand their use of these devices.^{2/}

2. In their Limited Petition, the Gas Utilities explained that the *Decision* is generally a well-reasoned accommodation to most parties participating in this proceeding, and commended the Commission for its recognition of the public interest benefits of Part 15 devices and for its efforts to protect their continued use of the 902-928 MHz band.^{3/} In particular, the Gas Utilities supported the Commission's determination to protect the 910-920 MHz sub-band from high-powered multilateration systems ("MLS"), and its definition of harmful interference so as to exclude Part 15 devices operating indoor, or if outdoor, operating at one watt or below (with up to 6 dBi of directional gain) and no higher than five

^{2/} As the Gas Utilities have previously noted, AMR promotes consumer and utility savings, energy conservation, and public safety. Moreover, because AMR devices are manufactured domestically, AMR means American jobs and a reduced trade deficit. Published reports indicate that an estimated 5.5 million AMR devices have been sold to utilities to date; approximately four million of these devices are the Itron Inc. devices used by the Gas Utilities. This amounts to an approximately \$200,000,000 investment in equipment alone. Moreover, this is but the tip of the iceberg. There are an estimated 234 million utility meters in North America, with the overwhelming majority sited in the United States. Analysts believe a large percentage of these meters will eventually be read automatically. See "Keeping a Watchful Eye on Utility Meters," *Investor's Business Daily* (May 16, 1995) (Attached as Exhibit I, hereto).

^{3/} See *Decision* at para. 34.

meters above ground.^{4/} The Gas Utilities also commended the Commission for adopting certain other rules designed to limit the likelihood that MLS will eventually crowd out Part 15 devices from the band, including height/power and interconnection restrictions.^{5/} In addition, the Gas Utilities suggested certain revisions to the *Decision* to remedy areas where the *Decision* did not adequately protect the legitimate interests of Part 15 users in general and of AMR users in particular. Specifically the Gas Utilities suggested the Commission reconsider its *Decision* in the following limited respects:

- a. Limit emissions from LMS base and mobile transmitters operating from 902-927.25 MHz to 10 watts effective radiated power ("ERP"), except where highly directional antennae are employed, and impose reasonable height restrictions on MLS transmitting antennae;
- b. Provide protection for Part 15 devices from interference from grandfathered MLS; and
- c. Prohibit wide-band forward links and provide stricter limits on interconnection and operations with the public switched telephone network ("PSTN").

3. Review of the submissions of the various parties indicate the general agreement among Part 15 users with the suggested revisions of the Gas Utilities. Unfortunately, however, certain MLS proponents, with the notable exception with respect to certain issues of Southwestern Bell Mobile Systems ("SBMS") and Airtouch

^{4/} See Rule Section 90.361.

^{5/} See Rule Sections 90.205(b) and 90.353(a)(3).

Teletrac,^{6/} have advanced a hardline, uncompromising position, essentially ignoring the important public interest benefits of Part 15 use of the 902-928 MHz band and treating Part 15 use of the band as a tenancy by sufferance.^{7/}

4. In the discussion below, the Gas Utilities will respond to the material arguments and issues raised by the reconsideration petitions. In particular, the Gas Utilities will respond to calls made by MLS proponents to limit the presumption of non-interference for low-powered Part 15 devices, and to eviscerate the other protections the Commission adopted in an attempt to safeguard the important public interest in robust use of the band by Part 15 devices.

^{6/} Airtouch limited its Petition for Reconsideration to the narrow issues of the permissible emission mask for LMS systems and the treatment under the definitional interference thresholds of video links. Although the Gas Utilities disagree in certain respects with Airtouch's request, they commend Airtouch for not using the reconsideration process as a chance to simply reargue the entirety this proceeding.

^{7/} As the Petition of Safetran Systems Corporation explains, there is an inherent tension in authorizing a wideband Major Trading Area ("MTA") licensed service in a shared band. Although the Gas Utilities would have preferred the Commission -- like Safetran argues -- to award the MLS proponents clean spectrum in another band, the Gas Utilities accepted the Commission's decision to license MLS systems in the 902-928 MHz band and looked instead for ways to facilitate sharing of the band. Unfortunately, the attitude of the MLS community appears to be to refuse to recognize even the right of Part 15 to exist if it would inconvenience MLS. That is as much an unconstructive position in this proceeding as in a foreign policy context.

II. The FCC should maintain the presumption that low powered Part 15 devices will not interfere with LMS licensees.

5. Various MLS proponents^{8/} request the Commission to reconsider that portion of its *Decision* establishing definitional threshold presumptions that certain Part 15 devices operating indoor, or with one watt or less effective isotropic radiated power and with antennae gain of not more than six dB, located five meters or less above ground, will not interfere with MLS operations.^{9/} They argue that unless the presumption of non-interference can be rebutted they will suffer interference to their systems with potentially degraded service.^{10/}

6. The MLS proponents' requests must be denied. The interference thresholds are necessary to allow Part 15 and the MLS stations to co-exist in the 902-928 MHz band. Without the thresholds, Part 15 users would be subject to shutdown at the complaint of MLS licensees. As such, the thresholds represent a

^{8/} See Uniplex Corporation ("Uniplex") Petition at 7-8; SBMS Petition at 8-9; Pinpoint Communications, Inc. ("Pinpoint") Petition at 23; Mobilevision L.P. Petition at 10-13.

^{9/} The presumption would also apply to outdoor Part 15 devices with antenna heights above five meters up to 15 meters, if a corresponding power reduction is employed. Several Part 15 petitioners have requested raising the threshold to 15 meters without any power reduction principally to support effects to provide classroom connection to the Internet and to support other wireless networking applications. See Wireless Transaction Corporation Petition at 2-3; Connectivity for Learning Coalition Petition at 2-7; UTC Petition at 13-17; Part 15 Coalition at 13-14; Metricom, Inc. and Southern California Edison ("Metricom") Petition at 1-6. In addition, Cellnet Data Systems, Inc. ("Cellnet") suggests that Part 15 users should be reclassified as co-primary in certain portions of the 902-928 MHz band. See Cellnet Petition at 3-4.

^{10/} See, e.g., Mobilevision Petition at 12-13.

reasonable and appropriate policy decision by the Commission balancing the needs of the MLS community against the public interest benefits which Part 15 devices foster.

7. Moreover, the thresholds themselves are far from arbitrary. They follow directly from the Consensus Paper tendered in this docket by all of the MLS proponents except SBMS.^{11/} That paper demonstrated to the Commission that: (1) MLS stations were interference tolerant; (2) there have been few interference complaints against Part 15 devices by the MLS community; and (3) the handful of actual complaints have involved field disturbance sensors, wide-band video links, and other outdoor devices operating with relatively high propagation characteristics. In response to this and other showings in the record, the Commission excepted field disturbance sensors from the thresholds and set reasonable height and power criteria to minimize the possibility of interference to MLS facilities.^{12/} That the Commission did not completely protect MLS stations from interference is to be expected given the admission that these systems are interference tolerant, and given the shared nature of the band.

^{11/} See LMS Consensus Position on Part 15 Interference (June 23, 1994).

^{12/} Airtouch notes correctly that the Commission's *Decision* omits to mention the treatment of long range video links. See Airtouch Petition at 8. The Gas Utilities agree that this aspect of the *Decision* should be clarified, although the Gas Utilities believe the proper treatment of such links is to apply to them the same thresholds set out in the *Decision* for other Part 15 devices.

8. Finally, the thresholds are a proper response to the fear of the Part 15 community that the MLS proponents might be minimizing the likely degree of interference to their systems from Part 15 devices as a public relations ploy to obtain a favorable result in this proceeding, and that following the adoption of final rules for the Location and Monitoring Service, the MLS licensees would be ruthless in ferreting out alleged interfering Part 15 devices.^{13/} Setting a specific rule defining harmful interference now is an appropriate policy choice rather than engaging in endless adjudication later. It provides the Part 15 community with guidance as to the permissible limits of operation without complaint, and likewise guides the MLS proponents as to the level of interference tolerance they must engineer into their systems. As such, serves not only to minimize interference complaints,^{14/}

^{13/} Although reluctant to insinuate duplicity on the part of the MLS community, the Gas Utilities nevertheless harbor this fear in light of the apparent flip-flop the MLS proponents have taken on the issue of interference.

^{14/} The nightmare of adjudicating thousands of otherwise avoidable interference complaints is surely reason enough to proceed in this case by rule rather than case by case adjudication, a choice nonetheless always within the Commission's discretion. See, e.g. *United States v. Storer Broadcasting Co.*, 351 U.S. 192 (1956); *SEC v. Chenery Corp.*, 332 U.S. 194 (1947). The Gas Utilities do not believe this problem is likely to be solved by Uniplex's suggestion that the Commission create a pool to resolve interference complaints by arbitration. Uniplex Petition at 8. No authority exists for such a procedure; nor, even if the Commission had authority to adopt arbitration, is it likely to be as beneficial a solution as the threshold approach the Commission has adopted.

but more importantly to reduce actual cases of degraded service.^{15/}

III. The Commission should decline to increase the power of wide-band forward links and indeed should not authorize them.

9. The Decision authorizes both wide-band forward and reverse links, subject to the condition imposed on all MTA MLS licensees to "demonstrate through actual field tests that their systems do not cause unacceptable levels of interference to Part 15 devices." Rule Section 90.35(a)(4). In their Limited Petition, the Gas Utilities stated that assuming transmit power is reduced to 10 watts ERP, they are not concerned with wide-band reverse link

^{15/} It is true that cases can be imagined where the interference thresholds might be met and yet interference could occur to an MLS licensee. For example, something like the case of someone using a cordless phone on the twelfth story of a building with large windows facing an MLS receive site on the next building has been cited as potentially desensitizing substantially the MLS receiver site. First, however, 900 MHz portable telephones operate as frequency hoppers, not as spread spectrum direct sequence devices, and are simply not capable of easily causing interference to a received wide-band spread spectrum signal. Second, as a result of the thresholds, MLS systems will have an incentive to locate their receivers so as to minimize received interference. Thus, they will not likely place large numbers of receivers in areas where consumer or industrial Part 15 devices which may be interference sources are located. Third, even if interference were to occur in such a situation, it would be a simple expedient for the MLS licensee to simply offer to change the transmitter frequency of the Part 15 device. Few reasonable persons would refuse such a request.

In this vein, Uniplex offers a concern that parties could intentionally interfere with an MLS licensee with devices meeting the thresholds to cause the MLS station to pay greenmail. Uniplex Petition at 7. Were that to be the case, the Gas Utilities are certain there would be a judicial remedy for such misconduct. In any event, the Gas Utilities would urge the Commission to address this concern by adopting a strict provision against the payment of greenmail.

transmissions. However, the Gas Utilities argued against allowing wide-band forward links. As the Gas Utilities explained, such

links are particularly pernicious because they will have the tendency to clog up the particular multilateration bands in which they operate for the full period of the forward link's duty cycle. During that time, spread spectrum direct sequence transmissions of Part 15 devices within range of the wide-band forward link -- which will most likely be the entire MTA multilateration system -- will be overpowered over the bulk of their transmission band.

[Moreover], frequency hopping devices operating within that band that are sufficiently sophisticated to search for and avoid occupied frequencies will be crowded out of these portions of the band, and will migrate to and be concentrated in other portions of the 902-928 MHz band [where meter reading devices operate]. This will tend to cause the noise floor within ... the band to rise, causing degraded operation of the meter reading devices as well as of the migrating devices.

Gas Utilities Petition at 13 (footnotes omitted).

10. Other members of the Part 15 community likewise saw the dangers of wide-band forward links, and have called upon this agency to prohibit them outright.^{16/} Pinpoint and Uniplex, however, have taken an entirely contrary view and argue the Commission should allow wide-band forward links with powers as high as 500 watts. Neither party has come close to justifying its position in light of the danger such high-power wide-band transmissions pose to the continued operation of Part 15 devices. Uniplex suggests imposing a duty cycle limitation instead of a 30

^{16/} See Wireless Transactions Corporation Petition at 2; Cellnet Petition at 5-6; Part 15 Coalition Petition at 4-7; Metricom Petition at 6-8.

watt power limitation.^{17/} However, Uniplex neither identifies what that duty cycle limit would be, nor provides any technical justification for it.

11. Pinpoint's sole rationale for raising the permissible power of wide-band forward links is that the signal will be spread across the MLS licensee's authorized spectrum, reducing the possibility of interference. However, it is because wide-band forward link signals will be spread across the licensee's entire bandwidth, however, that these links are such an interference threat, even at a reduced power. They will drown out any direct sequence Part 15 receiver within range, and will crowd intelligent frequency hoppers into the other areas of the band. Giving them more power will just increase the range at which they will decimate the operations of Part 15 devices.^{18/} Thus, rather than allowing

^{17/} Uniplex's Petition contains an extended discussion of the alleged application advantages of wide-band forward links, with emphasis on tracking of persons instead of vehicles. See Uniplex Petition at 2-4. However, its petition is not persuasive that MLS stations employing narrowband forward links cannot offer the same applications, nor why the Commission should reorient LMS away from being concerned primarily with the location of vehicles. See *Decision* at para. 24.

^{18/} In this connection, the Gas Utilities repeat their call for reasonable height limitations on forward link transmitters, narrow and wide-band. If the Commission does not outright prohibit wide-band forward links, as the Gas Utilities and others have requested, Pinpoint and other wide-band forward link operators are sure to construct with the highest possible antenna locations. As the Gas Utilities showed in their Petition, high forward link transmitter locations risk significant levels of interference to Part 15 and other users. See Gas Utilities Petition at 13. Narrowband forward links should be limited to 100 meters height above average terrain ("HAAT"), and fixed base stations in the main portion of the band should be limited to 15 meters HAAT.

wide-band forward links to operate with 30 watts of power in the main portion of the band, these links should be completely prohibited, with other emissions in the main portion of the band being limited to 10 watts ERP.^{19/}

12. The Gas Utilities do agree with Pinpoint's concern that the testing requirement imposed on MLS is not adequately defined. However, the Gas Utilities disagree with Pinpoint's and other MLS proponents' call to eliminate the requirement.^{20/} The appropriate Commission response should be to define clearly what MLS licensees must show and to provide appropriate procedural protections and provision for Part 15 and other interested parties to participate in those tests.^{21/} To the extent the MLS community has concerns that the testing requirement somehow exceeds the Commission's discretion under the Administrative Procedures Act,^{22/} and the Gas Utilities do not think it does, the Gas Utilities would have no objection to the alternative of a stay of the Commission's *Decision* and the conduct of tests under the Commission's supervision pending its issuance of a decision on reconsideration.

^{19/} As the Gas Utilities explained in their Petition, 30 watts ERP for mobile and base stations operating in the heart of the 902-928 MHz band is too much power given the shared nature of the band. Limited Petition at 6-7.

^{20/} See Pinpoint Petition at 23; SBMS Petition at 7-9.

^{21/} See Part 15 Coalition Petition at 15-16; Metricom Petition at 8-10; Cellnet Petition at 6-9; UTC Petition at 11-12; Gas Utilities Petition at 17-20. The Gas Utilities suggested in their petition (at 18-20) detailed procedures for ensuring appropriate input into such tests. See also UTC Petition at 12.

^{22/} SBMS Petition at 8.

IV. MLS stations should not offer general message service.

13. As the Gas Utilities noted in their petition (at 15), the *Decision* recognized that unlimited interconnection and messaging service is inappropriate in a shared, highly congested band.^{23/} The *Decision* nevertheless permitted (1) status and instructional messages between MLS systems and monitored vehicles, (2) store and forward communications from the PSTN to monitored vehicles and from the vehicles for later transmission over the PSTN, and (3) real time interconnection for emergency communications. *Decision* at para. 27.

14. Various parties have sought reconsideration of this aspect of the *Decision*. Mobilevision contends that the interconnection limitation to status and instructional, store and forward, and emergency messages is too restrictive to permit viable LMS services, and that the limitation is vague, ambiguous and difficult to enforce.^{24/} Although in agreement with Mobilevision concerning the ambiguity and difficulty of enforcement of the interconnection restrictions, the Gas Utilities cannot agree with Mobilevision's proposal to essentially turn MLS into a general

^{23/} *Decision* at paras. 25-26. This is because such transmissions entail continuous spectrum occupancy in the forward and reverse links, rather than the short bursts of data needed to obtain a location fix.

^{24/} Mobilevision Petition at 3. Mobilevision appears to stand alone in this belief. Moreover, if Mobilevision wants to offer vehicle location in conjunction with general message traffic, there is a considerable amount of PCS spectrum available on which it could bid.

messaging providers.^{25/} Instead, the Gas Utilities agree with the positions of SBMS and others that the Commission should narrow the permissible communications offered by MLS.^{26/} As MLS proponent SBMS candidly acknowledges, "permitting lengthy conversations on LMS spectrum will increase the probability of harmful interference with Part 15 devices and with other LMS systems...." SBMS Petition at 11. The Gas Utilities concur and therefore adhere to their earlier position that communications should be limited to emergency traffic or brief message traffic between systems and monitored vehicles.^{27/} Therefore, that the Commission should reconsider its decision to allow interconnected store and forward communications.^{28/}

^{25/} In this connection, the Gas Utilities note the detailed analysis submitted by UTC which indicates that any content restriction the Commission may impose on MLS licensees would be unenforceable. See UTC Petition at 4-9.

^{26/} SBMS Petition at 9-11; Connectivity for Learning Coalition Petition at 11-13; Cellnet Petition at 9-13; UTC Petition at 2-11; Part 15 Coalition Petition at 7-12; Metricom Petition at 13-15.

^{27/} The Gas Utilities continue to support the use of a panic button mechanism or preprogrammed messages as the only allowed form of interconnected traffic. See, e.g., UTC Petition at 9-10; Part 15 Coalition Petition at 8-10.

^{28/} Were the 902-928 MHz band not shared among several classes of users, the Gas Utilities would be sympathetic to Mobilevision's mantra to let the market determine the appropriate use of the spectrum. Mobilevision Petition at 3-4. However, the laws of physics being unamendable leaves the Gas Utilities in the predicament that hundreds of thousands of existing low-powered Part 15 devices are susceptible to interference from any one of Mobilevision's various to date unbuilt MLS systems, once market forces justify Mobilevision's construction of them. Accordingly, market forces have to yield in this instance to the FCC's role of traffic cop.

V. The FCC should prohibit expansion of grandfathered stations.

15. The *Decision's* treatment of grandfathering issues has drawn considerable comment from parties seeking reconsideration. The principal issues raised by the petitions are:

- a. Should the Commission limit the number of grandfathered stations, either numerically or to those constructed by the effective date of the rules?^{29/}
- b. Should grandfathered stations be allowed to modify facilities?^{30/} and
- c. Will the interference thresholds apply to grandfathered stations?^{31/}

With respect to these issues, the Gas Utilities have the following positions.

A. Unbuilt stations should not be grandfathered.

16. The Gas Utilities agree with SBMS and other parties that no public interest basis exists for grandfathering stations that have not been constructed. To the extent licensees have placed capital at risk, constructed facilities and begun providing public service, it is appropriate to award grandfathered status. There are, however, licenses outstanding for hundreds of unbuilt stations, the bulk of which were acquired during the pendency of this proceeding. Grandfathering those facilities under the interim rules serves no public interest purpose. Indeed, the appearance is created that grandfathered licensees will reap a windfall in

^{29/} See SBMS Petition at 13-20; Pinpoint Petition at 15-16; Cellnet Petition at 13-14.

^{30/} Pinpoint Petition at 16-17; Uniplex Petition at 5; Mobilevision Petition at 7-9.

^{31/} Metricom Petition at 15-16.

exchange for warehousing spectrum.^{32/} In addition, the grandfathering of such a large number of facilities complicates both the auction of the remaining multilateration spectrum and coordination and interference management between grandfathered multilateration stations, Part 15 users and non-multilateration licensees.

B. Grandfathered MLS licensees should not be allowed to modify or expand their facilities.

17. For similar reasons, grandfathered MLS licensees should be prohibited from modifying or expanding their systems under the interim rules. Because these facilities may not be subject to full compliance with the carefully balanced rules adopted in this proceeding, as a matter of policy, such systems should not be allowed to expand or modify their facilities unless it is in full compliance with the revised rules. It is to be emphasized that this should not be a hardship on those licensees because they are under an obligation to be in full compliance with the rules by April 1, 1998, and thus will be focusing their energies on effective compliance with the revised rules.^{33/}

^{32/} Even were the Commission to allow these entities to keep their licenses, they should, consistent with the Commission's action on Pioneer's Preferences be required to pay a substantial percentage of the value of those licenses. See *Pioneer's Preference Rules*, 9 FCC Rcd 4055 (1994).

^{33/} The Gas Utilities requested, however, that this date should be advanced to April 1, 1997, and that grandfathered MLS systems should comply with the *Decision's* height/power limitations by April 1, 1996. See Gas Utilities Petition at 9-12.

C. Interference thresholds should apply fully to grandfathered stations.

18. In their petition, the Gas Utilities requested the Commission to hold that grandfathered systems would not receive interference protection from Part 15 devices operating otherwise in compliance with the rules, and would be placed under an obligation to minimize interference to such Part 15 devices until they are in full compliance with the amended rules. Accordingly, the Gas Utilities fully support Metricom's request that the Commission apply the interference thresholds to grandfathered MLS systems as well as MTA systems authorized under the revised rules. Indeed, there is no public interest reason for giving grandfathered stations (which after all obtained their licenses for free) any higher right to protection than MTA licensees, who will be paying for their authorizations at auction. Moreover, given the hundreds of licenses which may be receiving grandfathered protection, the failure to apply the interference thresholds to them poses substantial risk to the millions of embedded Part 15 devices, which the *Decision* recognized as providing a substantial public interest service.

VI. The Commission has adopted an appropriate emission mask.

19. Various MLS proponents complain that the emission mask specification contained in revised Rule Section 90.209(m) is overly stringent.^{34/} It is asserted that the emission mask requirement would necessitate MLS and non-MLS systems to employ expensive

^{34/} See, e.g., Airtouch Petition at 2-8; Mobilevision Petition at 9-10; SBMS Petition at 21-23.

filters to achieve the substantial roll-off in out-of-band emissions required by the rule.^{35/} Accordingly, the MLS proponents have suggested various modifications to the emission mask.^{36/} The Gas Utilities believe the emission mask is appropriate for MLS systems and non-MLS base station facilities.^{37/} Again, it is important to stress that the 902-928 MHz band is a shared band. As such, if sharing is to work, out-of-band emissions must be substantially limited. The emission mask specified in the decision accomplishes that goal and should be retained.^{38/}

VII. Amtech's claimed need for non-MLS "operational flexibility" must be closely scrutinized.

20. Amtech suggests the Commission needs to provide non-multilateration systems "operational flexibility" to exceed the height/power limitations adopted in the *Decision*.^{39/} Amtech suggests a 15-meter transmitting antennae height limitation may not

^{35/} *Id.*

^{36/} *Id.*

^{37/} The Gas Utilities have no objection to a relaxation of the emission mask for non-MLS mobile units.

^{38/} By contrast, the emissions limitations Teletrac would have the Commission adopt are based on requirements for point to point microwave systems licensed under Rule Parts 21 and 94 for wide-band transmissions, and Part 24 (PCS) for narrowband transmissions. The spectrum licensed under these parts is either coordinated to avoid interference, or is clear. See Affidavit of Thomas G. Adcock, Exhibit II, hereto. As Mr. Adcock's affidavit makes clear, where a mobile service on shared spectrum is concerned, it is appropriate to impose a tighter emission standard than for fixed, coordinated, point to point services on clear spectrum.

^{39/} Amtech Petition at 9-15.

comport with its needs in case, for example, of antennae located at airports monitoring taxis or on cranes unloading ships. The Gas Utilities are sensitive to Amtech's concern and believe it should be accommodated as long as such antennae are directionalized downward with a power reduction commiserate with their height above 15 meters. That should provide a sufficient safeguard so that undo interference would not be caused Part 15 users.

21. Amtech's call for flexibility with respect to an increase in power is more troublesome, however. As the Gas Utilities explained in their petition, 30 watts of power for non-MLS systems appears excessive in relation to the limited area covered by such systems.^{40/} Although the Gas Utilities do not object to 30 watts of power for highly directional antennae, only in the most extraordinary circumstances should the Commission approve a higher power for such systems, which most appropriately ought to be determined in the context of a waiver request.

VIII. Conclusion.

22. As the Commissioners' separate statements show, the *Decision* in this proceeding is far from a win, win, win. Rather it is a set of compromises designed to accommodate interests that are diverse and potentially conflicting. The *Decision* unambiguously

^{40/} Gas Utilities Petition at 6-7. In this connection, the Gas Utilities are troubled by the suggestion of the Interagency Group (Petition at 2-3) that the Commission issue blanket licenses for large scale toll operations. In the Gas Utilities' view, non-MLS systems would most appropriately be licensed on a site-by-site basis to ensure that other users of the band will be aware of and can coordinate with such licensees to avoid interference.

recognized the public interest importance of automatic meter reading and more generally the public benefits that the millions of Part 15 devices operating in the 902-928 MHz band provide. Accordingly, the *Decision* enacted certain safeguards, including (1) interference thresholds, (2) limits on interconnected traffic, and (3) a requirement for testing prior to operation, and (4) the emission mask, to facilitate sharing the band and to protect Part 15 operations. Because the *Decision* nevertheless failed in certain respects to protect adequately those interests, favoring instead to accommodate unnecessarily a service with hundreds of unbuilt facilities, but only six operating systems serving a handful of subscribers, the Gas Utilities sought limited reconsideration to ensure the continued viability of the 902-928 MHz band for automatic meter reading use. Thus, while far from a perfect decision from the standpoint of the Gas Utilities, the *Decision* was on balance a reasonable attempt to accommodate their interests.

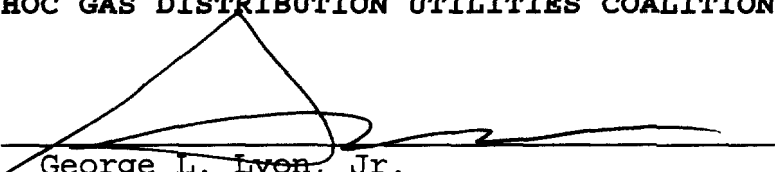
23. Contrasted with the Commission's *Decision*, however, are the MLS proponents' calls to do away with the interference threshold presumptions, to eliminate any testing of MLS stations prior to operation, to eliminate any restriction on interconnected traffic, and to liberalize the emission mask requirement. These positions, if adopted, would eliminate each of the protections the Commission fashioned to safeguard the interests of Part 15 users. For the Commission to reverse its course and adopt these proposals would be to turn its back on the public interest benefits of Part 15 devices. The Gas Utilities urge the Commission to reject these

calls to weaken the protections provided Part 15 in the *Decision*, and instead to adopt the suggestions of the Gas Utilities and other members of the Part 15 community to strengthen those protections.

Respectfully submitted,

AD HOC GAS DISTRIBUTION UTILITIES COALITION

By: _____


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May 24, 1995

EXHIBIT I